Dräger PSS® Merlin®
Telemetry Monitoring System

The Dräger PSS Merlin Telemetry System offers a precise overview of the status of respiratory equipment wearers. The vital status information is communicated directly between the entry control point and the wearer. Technology, which supports the incident, significantly increases safety and protects the lives of your breathing apparatus wearers.

TELEMETRY – FOR PRECISE MONITORING OF BREATHING APPARATUS WEARERS

The Dräger PSS Merlin System offers the choice of using two versatile versions. Firstly, you can use the PSS Merlin Entry Control Board, the Dräger Bodyguard 7000 or Bodyguard II electronic monitoring unit and the ATEX-approved PSS Merlin Modem.

Secondly, the system can be used with the Dräger PSS Merlin Software as opposed to the Entry Control Board. The Software, when used with the PSS Merlin PC Modem, offers additional benefits.

By using the PSS Merlin Modem, the latest information will be sent from the Bodyguard 7000 or Bodyguard II to the PSS Merlin Software or Entry Control Board, meaning that the incident commander is given real time information of the breathing apparatus wearer, enabling a prompt response in case of emergency situation.

LIFE CRITICAL INFORMATION IN REAL TIME

There is a two way communication between the wearer and the incident commander. Transmitted from the breathing apparatus wearer is the following data:

- Manual distress signal
- Automatic distress signal
- Cylinder pressure
- Time to whistle
- Elapsed time
- Withdrawal and evacuation signal
- Acknowledgment of global or individual evacuation signal

Via the Software or Entry Control Board, the incident commander is able to

- send individual or team evacuation
- acknowledge breathing apparatus wearer's distress signals, automatic distress signals and withdrawal signals

AUTOMATIC ACTIVATION AND LOGGING IN

For enhanced usability: When opening the cylinder valve, the system switches on both the Bodyguard 7000 and the PSS Merlin Modem. The PSS Merlin Entry Control Board is activated by the insertion of a tally key. The identity of the PSS Merlin Modem is read and a unique connection is established between radio and board. The system continuously monitors the status of the connection. When used with the Dräger PSS Merlin Software and the PSS Merlin PC Modem,

Dräger PSS® Merlin® Software and PC Modem

Dräger PSS® Merlin® Entry Control Board

it is even possible to log on the breathing apparatus automatically – without the need for insertion of a tally key.

It is however still possible to establish the connection by a tally, if required. Personalization of the breathing apparatus can also be undertaken, enabling for easy documentation and transparency for tracking its usage.

SECURELY CONTROLLING THE INCIDENT - INTUITIVE MERLIN SOFTWARE

When using the PSS Merlin Software, the PSS Merlin Entry Control Board is not required. The PSS Merlin PC Modem communicates directly with the wearers' PSS Merlin Modems. Even non-telemetry users can be displayed by entering a time to whistle countdown in the Software. Thanks to a weatherproof USB port, the robust and IP 65 rated PSS Merlin PC Modem does not require an additional power supply. In order to avoid loss of data, the system offers a three-way back-up: The PC Modem, the Software and an optional, external memory always save the latest status of the persons being logged on – no data will be lost. When using the overview mode, an incident commander can gather the information from several, independent entry control points. Analysis of this data gives a comprehensive picture to aid further decision making. A training mode gives users the ability to train in the operation of the software and carry out realistic incident simulations. Post incident, the data collected can be documented in a report which it is then also possible to load into the fire brigade administration software Drägerware.ZMS/fire.

ALL INFORMATION AT ONE GLANCE

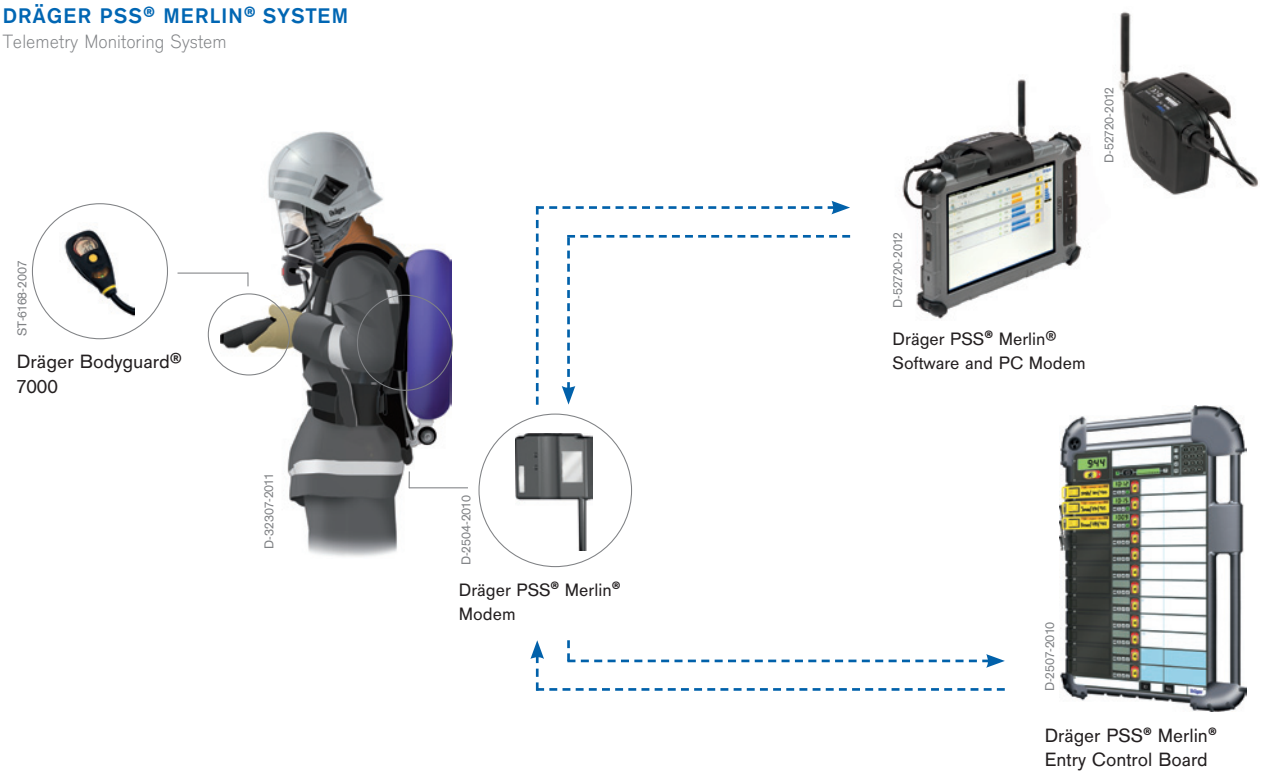
The Dräger Bodyguard 7000 combines life critical status updates: Displaying cylinder pressure, time to whistle, acoustic and optical warning signals, automatic distress signals, manual distress signals. When used with the PSS Merlin Telemetry System, Bodyguard 7000 displays radio signal status. All data is stored on the device and can be documented or easily retrieved to optimize training.

INCREASED WEARER COMFORT, MAXIMUM FREEDOM OF MOVEMENT

The PSS Merlin Modem is designed to fit perfectly onto the backplate of Dräger PSS 5000 and PSS 7000 series breathing apparatus. It is located centrally between the backplate and the cylinder resulting in a seamless integration with the ergonomic carrying system. The compact design decreases snagging risks; the clear waist belt allows more freedom of movement. As the PSS Merlin Modem is directly connected to the central electronics of the Bodyguard 7000, there is only need for a single rechargeable battery to supply power to both the Bodyguard 7000 and PSS Merlin Modem. This simplifies the battery logistics and charging process.

DRÄGER PSS® MERLIN® SYSTEM

Telemetry Monitoring System



INCREASED CHARGING EFFICENCY – EVEN IN TRUCKS

In order to save valuable time with battery logistics, in-cab chargers are available for both the PSS Merlin Modem and the PSS Merlin Entry Control Board. The batteries are re-charged easily and effectively, whilst inside the fire truck.

For users who wish to maintain battery packs off the breathing apparatus, Dräger has developed a bench system which allows up to 4 battery packs to be charged simultaneously. Uniquely, this charger can also perform a health check on each pack. Simply insert the battery into the charger – the rest is automatically carried out by the charging station.

INCREASED SAFETY DURING THE INCIDENT

- Vital information at one glance outside of danger zone
- Sending distress signals
- Acknowledgement of distress signals
- Integrated incident reporting
- Simple accountability with Dräger PSS Merlin Software

SELECTED ACCESSORIES

D-52729-2012

Dräger PSS Merlin PC Modem

D-52715-2012

Dräger PSS Merlin PC Modem Tablet Adaptor

D-57082-2012

Carrying Harness for Tablet PC with PSS Merlin PC Modem

D-52721-2012

Dräger PSS Merlin RFID Tallies

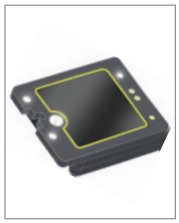
D-2501-2010

Battery Charger (for Repeaters)

D-2514-2010

4-Way Battery Charger (Breathing Apparatus with Dräger Bodyguard 7000)

D-2513-2010



NiMH Battery Dräger PSS Merlin Modem

D-2511-2010

In-Cab Charger PSS Merlin

D-2509-2010

ECB Charging Adaptor Kit

D-2512-2010

ECB Vehicle Charger Quick Release

D-2502-2010

Repeaters

D-2503-2010

Portable Leaky Feeders

ORDER INFORMATION

Dräger PSS® Merlin® System	Freq (MHz)	Order Number
Dräger PSS Merlin PC Modem (incl. Software)	450-470	33 60 895
Dräger PSS Merlin Entry Control Board	450-470	33 54 270
Dräger PSS Merlin PC Modem (incl. Software)	869.5	33 59 792
Dräger PSS Merlin Entry Control Board	869.5	33 51 145

Accessories Dräger PSS Merlin PC Modem	
PSS Merlin PC Modem Tablet Adaptor	33 60 295
RFID Tallies (5 pcs.)	33 60 838

Accessories Entry Control Board	
Universal Power Supply	33 51 804
Power Cord UK	33 51 805
Power Cord EU (220 V)	33 51 806
NiMH Battery PSS Merlin Entry Control Board	33 51 223
Tripod	33 51 802
Tripod Mounting Kit	33 51 803
Tripod Adaptor for DIN Tripods	33 54 125
Charging adaptor kit PSS Merlin Entry Control Board	33 51 819
In-Cab Charger PSS Merlin Entry Control Board	33 51 810
Protective Cover	33 51 812

ORDER INFORMATION

Dräger PSS® Merlin® System	Freq (MHz)	Order Number
Dräger PSS Merlin Modem (Dräger Bodyguard 7000)	450-470	33 58 410
Dräger PSS Merlin Modem (Dräger Bodyguard 7000)	869.5	33 57 982
Accessories Dräger PSS Merlin Modem		
Repeater 1	869.5	33 54 306
Repeater 2	869.5	33 54 562
4-Way Battery Charger Repeater		33 51 815
4-Way Battery Charger PSS Merlin Modem (for SCBAs with Dräger Bodyguard 7000)		33 57 885
Additional Battery PSS Merlin Modem (for SCBAs with Dräger Bodyguard 7000)		33 58 121
Entry Control Board Vehicle Charger Quick Release (QR)		33 54 349
In-Cab Charger QR PSS Merlin Modem (for SCBAs with Dräger Bodyguard 7000)		33 58 063
Portable Leaky Feeder (100 m)		33 54 787
Dräger Bodyguard 7000		
Dräger Bodyguard 7000 Button Upgrade Kit		33 57 101
Dräger Bodyguard 7000 Tally Upgrade Kit		33 57 098

TECHNICAL DATA

Dräger PSS® Merlin® System	Size	Weight	Volts
Dräger PSS PC Modem	135 x 120 x 40 mm	0.5 kg	5 V
Dräger PSS Merlin Entry Control Board	450 x 780 x 70 mm	9 kg	7.2 V
Dräger PSS Merlin Modem (only for Dräger PSS 5000/7000)	170 x 130 x 30 mm	0.44 kg	6.5 V
Dräger Bodyguard 7000	150 x 74 x 41 mm	0.35 kg	7.5 V
Dräger PSS Merlin Repeater	450 x 210 x 100 mm	2 kg	6.5 V

Range:	3 km (line of sight)
Transmission Power:	500 mW

Recommended minimal system requirements Dräger PSS Merlin Software	
Operating System:	Microsoft Windows XP
Processor:	2.33 GHz (1.6 GHz for Netbook or Tablet PC)
RAM:	128 MB (1 GB for Netbook or Tablet PC)
Graphic Board:	128 MB
Ports:	USB 2.0

APPROVALS

Dräger PSS® Merlin® System:

EN 137: Type 2 (Modem and Dräger Bodyguard 7000)
ATEX 94/9/EC (Modem and Dräger Bodyguard 7000)
EN 50303 (Modem and Dräger Bodyguard 7000)
EN 60079-0 (Modem and Dräger Bodyguard 7000)
EN 60079-11 (Modem and Dräger Bodyguard 7000)
EN 60079-26 (Modem and Dräger Bodyguard 7000)
Emark 2004/104/ec (Vehicle Charger)
R&TTE (EMC) 1999/5/EC (Telemetry Components)
EN 300 220-2 (Telemetry Components)
EN 300 330-2 (Telemetry Components)
EN 301 489-3 (Telemetry Components)
EN 60950 (Telemetry Components)

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